# Intervention Effects on Coping and Coping Efficacy:

# A Fifteen-Year Follow-Up of the New Beginnings Program

by

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## ABSTRACT

This study examined whether the New Beginnings Program (NBP), a preventive parenting intervention, led to changes in coping strategies and coping efficacy in emerging adults whose families had participated in the program 15 years earlier. Gender and baseline risk were examined as moderators of these relations. Participants (M = 25.6 years; 50% female) were from 240 families that had participated in an experimental trial (NBP [mother-only, mother-child] vs. literature control). Data from the pretest and 15-year follow-up were used. Multiple regression analyses revealed that pretest risk interacted with program participation in the mother-only condition of the NBP such that offspring entering the program with higher pretest risk reported significantly less avoidant coping 15 years later. There was a marginal effect of participation in the NBP on problem-focused coping; emerging adults who had participated in the NBP had marginally higher levels of problem-focused coping. There were no significant main effects nor interactive program by risk or program by gender effects on support coping or coping efficacy. Results are discussed in terms of their implications for implementation of preventive interventions and research on pathways of coping.

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## Introduction

An estimated 30 to 50% of youth in the United States experience parental divorce before the age of 18 (National Center for Health Statistics, 2008). Although there is evidence that the majority of children do *not* develop significant adjustment problems after parental divorce (e.g., Amato, 2001; Hetherington et al., 1999), it is well documented that a substantial minority of children who experience parental divorce are at increased risk for multiple negative outcomes both in childhood and adulthood. Research has demonstrated that children who have experienced parental divorce are at elevated risk for increased mental health problems and disorders, such as internalizing and externalizing problems and depression (Amato, 2001; Amato & Keith, 1991a; Fergusson, Horwood, & Lynskey, 1994; Hoyt, Cowen, Pedro-Carroll, & Alpert-Gillis, 2010), increased substance use (Paxton, Valois, & Drane, 2007), earlier onset of sexual activity and more sexual experience (Hetherington, 1999; Kinnaird & Gerrard, 1986), and more physical health problems (Langton & Berger, 2011; Troxel & Matthews, 2004).

Research has also demonstrated that a majority of emerging adults whose parents divorced in childhood or adolescence do *not* exhibit substantial increased risks (Chase-Lansdale, Cherlin, & Kiernan, 1995). However, they do demonstrate increased risks for several outcomes, including significantly lower educational and occupational attainment (Bernardi & Radl, 2014; Huurre & Aro, 2006; Sandefur, McLanahan, & Wojtkiewicz, 1992; Sun & Li, 2008), higher unemployment (Huurre & Aro, 2006), increased mental health problems (Afifi, Boman, Fleischer, & Sareen, 2009; Chase-Lansdale, Cherlin, & Kiernan, 1995; Kessler, Davis, & Kendler, 1997), higher rates of receiving psychological

help (Zill, Morrison, & Coiro, 1993), more risky health behaviors (Huurre & Aro, 2006), poorer relationships with their parents (Zill, Morrison, & Coiro, 1993), and higher rates of negative life events, including divorce (Huurre & Aro, 2006). Although meta-analyses of the effects of divorce on offspring's outcomes longitudinally have shown small effects (Amato, 2001; Amato, & Keith, 1991a; Amato & Keith, 1991b), the prevalence of divorce highlights the public health implications of these problems.

From the divorce adjustment perspective, divorce is not a singular event; rather, it is a process that begins before a physical separation and continues after a divorce has been legally finalized (Amato, 2010). Throughout this process, children must manage numerous stressful events (Felner, Terre, & Rowlson, 1988; Sandler et al., 1986). For example, children may deal with new living arrangements, switch schools, navigate new social relationships, be exposed to interparental physical conflict and badmouthing of the other parent, and experience different household rules. These stressors may continue long after a divorce has been legally finalized (Sandler, Wolchik, Braver & Fogas, 1991). Of course, there are individual differences in the way that children and adolescents perceive and react to these changes. The use of different strategies of coping with these challenges has been demonstrated to mediate and moderate relations between stressors associated with life transitions, such as parental divorce, and mental health problems, as well as other outcomes (e.g., Compas et al., 2001; Kliewer et al., 1994).

The current study examines the impact of the New Beginnings Program (NBP) on emerging adults' coping strategies and coping efficacy 15 years after participation in the program. The NBP is a theory-based prevention program for recently divorced parents

focused on improving mother-child relationship quality, effective discipline, and communication, and decreasing interparental conflict and barriers to father-child contact. The program aims to reduce short- and long-term post-divorce mental health problems and promote developmental competencies.

The short-term effects of the NBP have been tested in two randomized efficacy trials (Wolchik et al., 1993; 2000), the second of which included a test of a combined mother-only and mother-child program, and one effectiveness trial (Sandler et al., 2019). The initial trial demonstrated positive program effects on child-report of levels of aggression and depression and mother-report of behavior problems (Wolchik et al., 1993). At posttest and the 6-month follow-up in the second efficacy trial, there were significant reductions in children's externalizing problems in the NBP relative to a literature control condition (LC). The effectiveness trial reduced parent report of children's internalizing and externalizing problems (Sandler et al., 2019).

The second trial examined the long-term effects of the NBP. Because there were no significant differences in outcomes between the mother-only program and mother-child program at posttest or 6-year follow-up, the active interventions were combined and compared to the LC. At the 6-year follow-up, participation in the NBP led to decreases in problems, including incidence of mental disorder, internalizing and externalizing symptoms, substance use and risky sexual behavior as well as increases in competencies, such as self-esteem, active coping, coping efficacy, and educational aspirations (Velez et al., 2011; Wolchik et al., 2002; 2007). At the 15-year follow-up, the NBP had program effects on several outcomes, including reductions in internalizing disorders from

adolescence to emerging adulthood, mental health services sought, time spent in jail, and painful feelings about divorce, as well as increases in positive attitudes toward parenting and work competence (Christopher et al., 2017; Herman et al., 2015; Mahrer et al., 2014; Wolchik et al., 2013). Additionally, it led to decreased substance use in males (Wolchik et al., 2013).

Although the program increased active coping 6 years after the program through posttest improvements in mother-child relationship quality (Velez et al., 2011), whether the NBP affected coping strategies or coping efficacy at 15 years has yet to be examined. In order to inform this question, the limited research on coping and coping efficacy in samples of children who experienced parental divorce is reviewed below. Special attention is given to construct operationalization, the relations between coping strategies and mental health outcomes, gender as a moderator of the relations between coping and mental health outcomes, and the short- and long-term effects of interventions for at-risk children that target coping.

Coping has been defined as the "cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p. 14). More recently, other influential researchers (e.g., Compas et al., 2001) have modified this definition to specify that coping involves “conscious volitional” efforts in response to events or circumstances.

Reviews of the coping literature have demonstrated that engagement coping efforts, or coping efforts oriented toward a stressor or one’s emotional reaction to that stressor, are associated with lower psychopathology and other negative outcomes and

greater positive outcomes, such as self-esteem (e.g., Compas et al., 2001; Dumont & Provost, 1999). On the other hand, disengagement coping efforts, or efforts oriented away from a stressor or one's emotional response to that stressor, have been associated with lower psychopathology and other negative outcomes and greater positive outcomes (Compas et al., 2001).

Researchers have found important differences in the use of different coping strategies across development. Pre-school-age children are more likely to use avoidance. Elementary-age children are more likely to problem solve, and adolescents and adults are more likely to use cognitive and support strategies (Skinner et al., 2003; Zimmer-Gembeck & Skinner, 2011).

Coping strategies can serve as risk or protective factors for the development of psychopathology in response to psychosocial stressors, such as divorce. In fact, coping has been identified as one of the most central mediators between stressors, such as divorce, and positive as well as negative outcomes (Zimmer-Gembeck & Skinner, 2016). Furthermore, children's *beliefs* about their coping may affect their responses to parental divorce and other life stressors. Coping efficacy, defined as, "The belief that one can deal with the demands of emotions caused by stressful situations" (Sandler et al., 2000), is an important, but less researched, aspect of coping.

Despite the widespread coping literature, coping in samples of individuals whose parents have divorced has been vastly under researched. In one of the few studies to focus on children from divorced or separated families, Armistead and colleagues (1990) found that adolescents utilized active (cognitive), active (behavioral), and avoidant coping

strategies, in order of frequency, in response to stressors related to the divorce. Sandler, Tein, and West (1994) conducted cross-sectional and longitudinal analyses of negative events, coping strategies, and mental health outcomes. They found that four factors (active coping, avoidance, distraction, and support seeking) captured children's coping responses. Cross-sectionally, avoidant coping significantly mediated the relation between negative events and depression and anxiety. Active coping, on the other hand, moderated the relations between negative events and conduct problems, such that a significant relation between stressors and conduct problems existed only at low levels of active coping. Both active coping and distraction negatively predicted depression and anxiety six months later, whereas support coping was positively, prospectively related to increases in depression. Krantz, Clark, Pruyn, and Usher (1985), found that positive cognitive coping, which is similar to active coping, was associated cross-sectionally with fewer psychological adjustment problems in children experiencing parental divorce or separation. Additionally, both primary and secondary control coping, which are strategies used to directly alter a problem and attempts to adapt oneself to the problem, respectively, have been associated with lower internalizing and externalizing symptoms in adolescents dealing with stressors such as economic strain and family conflict (Wadsworth & Compas, 2002).

Only one study examined coping efficacy in a sample of children whose parents had divorced. In this study, coping efficacy mediated the relation between active coping and internalizing problems longitudinally, as well as between avoidant coping and psychological problems cross-sectionally (Sandler et al., 2000).

No research has examined coping or coping efficacy in *emerging adults* whose parents divorced during childhood or adolescence. However, researchers have examined the relations between coping and other stressful family events in childhood and emerging adult's coping. In a sample of women with and without alcoholic parents, women who reported more negative childhood family environments reported more avoidant coping (Amodeo, Griffin, Fassler, Clay, & Ellis, 2007). Family conflict also negatively predicted multiple dimensions of emotion-focused coping, such as venting of emotions, during emerging adulthood in a sample of college students (Johnson, Gans, Kerr, & LaValle, 2010). In another sample of college students, indirect coping, or coping that is not directly related to a problem (e.g., restraint, self-distraction), mediated the relation between family conflict and psychological distress, such that greater conflict led to increased indirect coping, which led to greater psychological distress (Lee & Liu, 2001).

Gender differences in coping strategies have not been examined in divorce-specific samples, with the exception of Ayers and colleagues (1996), who found no significant gender differences in coping strategies used by children who experienced parental divorce. However, researchers have found gender differences in strategies for coping with interparental conflict in two-parent families. One study found that boys were more likely than girls to "propose practical solutions" to marital conflict (Davies, Myers, & Cummings, 1996). In another sample of children from two-parent families, boys demonstrated more "overinvolved coping" in response to marital conflict than girls, which included behaviors such as, "I try to protect one parent from the other," and "I argue with one or both of [my parents]" (Shelton & Harold, 2008). Notably, researchers

have not examined gender differences in coping of emerging adults from divorced families.

Only one study has examined gender differences in the relation between coping and outcomes in divorce-specific samples; two others have examined gender differences in coping with marital conflict in two-parent families. In a sample of children who experienced parental divorce, Armistead and colleagues (1990) found that higher avoidant coping predicted higher internalizing, externalizing, and physical symptoms in girls only. In two-parent families, a composite of active and support coping was protective against depression in response to marital conflict for girls only (Nicolotti, El-Sheikh, & Whitson, 2003). Also, distraction coping was protective against depression and health problems for boys and girls whereas avoidant coping was associated with higher externalizing symptoms and physical health problems in boys, but not in girls. In a cross-sectional study that examined coping efficacy related to coping with marital conflict in two-parent families, greater emotion- and problem-focused coping efficacy was related to fewer adjustment problems for boys, but not girls (Cummings, Davies, & Simpson, 1994).

Only a few studies have examined the effects of preventive programs that include a focus on increasing children's coping skills after separation or divorce. A 10-session program that taught coping, as well as other skills, significantly improved parent ratings of child adjustment and teacher ratings of problematic behaviors (Pedro-Carroll & Cowen, 1985). A similar 14-week intervention led to parented-rated gains in internalizing and externalizing behavior (Stolberg & Mahler, 1994). Despite the fact that increasing

coping skills was a core component of these programs, neither researcher examined changes in coping strategies. Only one research group has examined coping as an outcome of a preventive program for children experiencing parental divorce. Velez and colleagues (2011) found indirect effects of the NBP to increase active coping and coping efficacy six years after program participation; these effects were mediated through intervention-induced posttest improvements in mother-child relationship quality. These results were especially interesting given that the intervention effects on coping were not significant immediately after the intervention for either the mother-only or mother-child program (Wolchik et al., 2000).

Preventive programs that target other groups of at-risk children have reported intervention-induced changes in coping. For example, Compas and his colleagues (Compas et al., 2010; Watson et al., 2014) examined the effects of a preventive intervention designed to increase effective parenting and children's secondary control coping in families with a history of parental depression and children aged 9-15. The intervention consisted of 8 weekly sessions and 4 monthly "booster" sessions. The intervention increased secondary control coping 6 months after pretest and at an 18-month follow-up. The increases in coping mediated the effects of the intervention on depressive, internalizing, and externalizing symptoms at the 18-month follow-up. In another study with children aged 7-12 who had been referred to treatment for anxiety, a 12-week cognitive behavioral treatment, the parent and child condition significantly increased active coping post-treatment compared to the parent-only and child-only conditions and the waitlist control. All three active conditions decreased avoidant coping

compared to a waitlist control (Mendlowitz et al., 1999). Tein, Sandler, and colleagues' (2006) study of a parent and child program for youth aged 8-18 who recently experienced the death of a parent found program effects on positive coping at posttest and at an 11-month follow-up (Sandler et al., 2003; Tein et al., 2006). Notably, the long-term effects of coping-focused programs administered in childhood or adolescence have not been examined, so it is unclear whether these effects persist or emerge in later stages of development.

**The Current Study**

The current study examined the NBP's effects on coping strategies and coping efficacy 15 years after participation when the offspring were emerging adults. Given that the NBP has demonstrated indirect effects on active coping and coping efficacy in adolescence (Velez et al., 2011), it is plausible that intervention effects would occur in emerging adulthood. As Compas et al. (2001) posit, the development of "characteristic ways of coping" in childhood could place individuals on more or less adaptive developmental coping trajectories that will persist into adulthood. Additional support for the NBP having long-term effects on coping and coping efficacy is provided by its effects on a wide range of outcomes at the 15-year follow-up, including reductions in internalizing disorders, mental health services sought, time spent in jail, painful feelings about divorce, as well as increases in positive attitudes toward parenting and work competence (Christopher et al., 2015; Herman et al., 2015; Mahrer et al., 2014 Wolchik et al., 2013; Wolchik et al., 2017).

The current study also examined whether gender moderated program effects on coping and coping efficacy. Gender differences in program effects were examined given that gender moderated a few program effects, such as attitudes toward marriage (Wolchik, Christopher, Tein, Rhodes, & Sandler, 2018) and substance use outcomes (Wolchik et al., 2013) at the 15-year follow-up. Thus, the gender moderation analyses were exploratory.

Risk was also examined as a moderator of program effects. Analyses of the 6-year program effects revealed that children and adolescents at higher risk for adjustment problems at pretest benefited more from the intervention than those with lower risk on several outcomes (Dawson-McClure et al., 2004; Wolchik et al., 2002) and, at the 15-year follow-up, pretest risk moderated program effects for a few outcomes, such as acceptance of the divorce than those at lower risk (Christopher et al., 2015). However, risk did not moderate the relations between program participation for most outcomes examined at the 15-year follow-up (Wolchik et al., 2013; Wolchik et al., 2018). Thus, the examination of risk as a moderator of program effects was also exploratory.

This study extends previous research on the effects of the NBP and research on coping in several ways. Previous research on the NBP has focused, in large part, on serious clinical outcomes, such as mental health problems, substance use, and involvement with the criminal justice system. However, the majority of children whose parents divorce do not experience such significant long-term negative outcomes (Hetherington, 1999). All will experience situations throughout their lives when they will

need to utilize strategies to cope with challenges. Examining coping and coping efficacy is clearly relevant for all individuals who experience parental divorce.

Given that divorce impacts a substantial number of children in the United States (National Center for Health Statistics, 2008) and coping predicts multiple adjustment outcomes in adulthood (Mahmoud et al., 2012), whether a preventive intervention provided in late childhood/early adolescence has long-term effects on coping is of particular interest because of its potentially wide-reaching public health implications. Further, emerging adulthood is a particularly vulnerable period, as mental health and substance use problems increase during this developmental stage (Arnett, 2005; Kessler et al., 2005). Thus, examining the ability of a preventive program to influence coping during emerging adulthood is especially important. It is estimated that divorce costs the United States $33.3 billion annually (Schramm, 2006). A sizeable portion of these costs can be attributed to drug abuse, depression, addiction, and mental health problems (Schramm, 2006). If a preventive intervention could increase adaptive coping strategies and decrease maladaptive coping strategies at a time when these problems are likely to increase, i.e., emerging adulthood, it would likely have significant economic and other public health effects.

Additionally, this study provides an important expansion of our knowledge about coping. No research has examined coping in emerging adults who experienced parental divorce in childhood. Furthermore, researchers have not examined the effects of preventive interventions provided in childhood on coping in emerging adulthood. The duration of the follow-up interval in this study is unique. Previous longitudinal studies of

intervention effects on coping in at-risk children have examined changes over shorter periods: less than a year, 1.5 years, or 6 years (Tein et al., 2006; Velez et al., 2011; Watson et al., 2014). Examining program effects over multiple developmental stages could further our understanding of the long-term effects of interventions on coping and inform theories on the developmental trajectories of coping.

**Hypotheses.** I predicted that participation in the NBP would lead to higher levels of problem- and emotion- focused coping strategies and coping efficacy at the 15-year follow-up. I predicted that participation in the NBP would lead to lower levels of avoidant coping at the 15-year follow-up. Gender and risk moderation analyses were exploratory.

## Methods

### Participants

Participants were emerging adults (EAs) and their mothers from 240 divorced families who participated in the randomized trial of the NBP 15 years earlier. Potential participants were primarily (80%) identified through randomly selected court records of divorce decrees of parents who had been divorced within the last two years and had children between the ages of 9 and 12 in a metropolitan area in the Southwest. Media, referrals, and other recruitment methods were also used. Participants first received an informational letter about the study followed by a phone call to assess eligibility. Mothers who met eligibility over the phone were invited to participate in a recruitment visit in their home. Eligibility was re-assessed during the pretest.

Eligibility criteria were: parents divorced in the last two years; the primary residential parent was female; at least one child in the family was between 9-12 years old; the eligible child resided with the mother at least 50% of the time; custody was expected to remain stable throughout the study; neither mother nor child were seeking mental health treatment; mother did not have a live-in partner, was not remarried, and had no immediate plans to remarry; the family resided within a 1-hour drive of the program site; mother and child were fluent in English; the child was not mentally handicapped or diagnosed with a learning disability; and children who had been diagnosed with ADHD were taking medication. In cases where there was more than one child in the target age range, one was randomly selected to participate for assessment purposes to ensure independence of responses. If children scored above a clinical cutoff on the Children's Depression Inventory (Kovacs, 1985), endorsed suicidal ideation, or scored above the 97$^{th}$ percentile on the Externalizing subscale of the Child Behavior Checklist (Achenbach, 1991), their family was excluded from the trial and given a referral for treatment.

Forty-nine families were found to be ineligible at pretest, and 26 refused to participate in the trial between pretest and randomization. Analyses showed that those who accepted randomization reported significantly higher income ($p=.03$), higher maternal education ($p=.01$), and fewer children ($p=.01$) than those who participated in the pretest but refused to participate in the trial. Children's mental health scores did not significantly differ between refusers and acceptors.

After the pretest, families were assigned to one of three conditions: the mother-only program (MP; n= 81), the mother-child program in which the mothers participated in the mother program and the children participated in a separate, concurrently run child program (MPCP; n=83), or the literature control (LC; n= 76). Randomization was conducted by project staff using a computer algorithm designed by a third-party researcher.

At pretest, children were an average of 10.4 years old (SD=1.1); 49% were female. On average, parents had been separated for 27 months (*SD*=17.2) and divorced for 12 months (*SD*=6.4). Mother race and ethnicities were: 88% Non-Hispanic White, 8% Hispanic, 2% Black, 1% Asian American/Pacific Islander, and 1% Other. On average, maternal household income was between $20,001- $25,000. About 47% of mothers had completed "some college." The majority (63%) of mothers had sole custody; 35% had joint custody and 3% had split custody.

At the 15-year follow-up, EAs were on average 25.6 years old (SD=1.2; range= 24-28); 50% were female. Emerging adult ethnicities were: 89% Non-Hispanic and 11.3% Hispanic. EA races were 93.8% White, 2.6% African-American, 2.1% Asian, and 1.5% Native American or Alaskan. Fifty-one percent of the EAs were married or living as if they were married. Educational attainment was: Less than high school – 2.6%; High school only – 22.1%; Some college – 45.4%; College graduate – 29.4%; Post-graduate – 3.1%. Median annual income was in the $30,000 range.

**Procedure**

Families were interviewed at five time points: pretest (T1), posttest (T2), three-month follow-up (T3), six-month follow-up (T4), six-year follow-up (T5), and 15-year follow-up (T6). For the current study, data collected at T1 and T6 were used.

Trained interviewers who were blind to intervention condition conducted assessments. Assessments were typically conducted in the participant's homes. Parents and offspring older than 18 signed informed consent forms; minors signed assent forms. Families received $45 for participating in assessments at pretest. Emerging adults received $225 and parents received $50 at the 15-year follow-up. The Institutional Review Board approved all study procedures.

**Intervention Conditions**

The mother-only condition consisted of 11 group sessions of 1.75 hours each. The intervention focused on teaching skills to increase mother-child relationship quality and effective discipline and decrease the child's exposure to interparental conflict and barriers to father-child interaction. Six sessions focused on mother-child relationship quality, and three sessions focused on effective discipline. Two one-hour individual sessions centered on increasing the utilization of program skills and decreasing barriers to father-child contact. The program was highly structured and used multiple methods, including active learning, videotaped modeling, and role-plays to teach and practice program skills. Homework assignments were given weekly. For specific skills taught, see Wolchik et al. (2007).

The 11-session child program focused on increasing adaptive coping and mother-child relationship quality and decreasing negative appraisals of divorce stressors. One of the sessions included a joint child-parent activity in which mothers and their children applied and practiced their effective listening and communication skills. More information on this program can be found in Wolchik et al. (2000).

Each group was led by two Master's-level clinicians who used a highly structured, detailed manual to deliver the sessions. Leaders were given extensive training prior to the start of the program (30 hours), and received weekly refresher training (1.5 hours/week) and weekly supervision (1.5 hours/week) by doctoral-level clinicians. In order to deliver the sessions, leaders were required to pass a quiz on the content of the session with a score of 90% or above. On average, leaders in the mother groups scored 97% (SD=3%) and those in the child group scored 98% (SD=1%). Mothers and children in the literature control condition were each given three books about children's adjustment to divorce. They were also provided a syllabus to guide their reading. Books were sent out at one-month intervals after families were assigned to a condition. On a scale ranging from "Didn't read at all" (1) to "Read the whole book" (5), participants reported reading about half of each of the three books (M = 3.04, SD = .92 for mothers; M = 3.22, SD = 1.01 for children).

## Measures

**Demographics.** Mothers (pretest) and emerging adults (15-year follow-up) reported on demographic variables including time since divorce, gender, education level, income, relationship/marital status, and ethnicity.

**Coping.** At pretest, children completed the Child Coping Strategies Checklist (CCSC; Ayers et al., 1996), a 44-item measure of the coping strategies children use when they encounter a stressor (i.e., "You tried to stay away from the problem"; "You tried to understand it better by thinking about it"). Participants indicated whether they used particular strategies never, sometimes, often, or most of the time. Ayers (1991) identified four overarching dimensions of coping using confirmatory factor analysis: active (α=.88), avoidant (α=.83), distraction (α=.76), and support (α=.90) coping. The CCSC has demonstrated good reliability and validity (Ayers et al., 1996; Sandler, Tein & West, 1994). Alphas for avoidant coping, active coping, and support coping at pretest were .83, .92, and .79, respectively.

At the 15-year follow-up, emerging adults completed the COPE Questionnaire (Carver, Scheier, and Weintrub, 1989), a 56-item measure that includes 11 subscales that assess a broad range of stress-response behaviors (i.e., "I pretend that it has not really happened"; "I try to come up with a strategy about what to do"). Participants responded on a 4-point Likert-type scale ranging from "I usually don't do this at all," to "I usually do this a lot." Carver (2007) does not provide instructions for grouping COPE subscales into higher order factors; rather, he recommends performing a CFA to explore the factor structure in one's own dataset. Thus, scores derived from a three-factor or four-factor model (see Hasking & Oei, 2002; Lyne & Roger, 2000) were planned for analyses. Each factor consists of 4-item subscales. For the three-factor model, avoidant coping includes mental disengagement, alcohol-drug disengagement, and denial subscales; problem-focused coping includes active coping, planning subscales, restraint, positive

reinterpretation and growth, and acceptance subscales; and emotion-focused coping includes social support (instrumental), social support (emotional), and venting of emotions subscales. For the four-factor model, problem-focused coping is broken down into active coping, which includes active coping and planning subscales, and cognitive coping, which includes restraint, positive reinterpretation and growth, and acceptance subscales. Emotion-focused and avoidant coping include the same subscales in both models. The COPE is a widely used measure that has demonstrated good test-retest reliability and convergent and discriminant validity (Carver et al., 1989).

**Coping efficacy.** At T1 and T6, children and emerging adults completed the General Coping Efficacy Scale, a seven-item measure about satisfaction with managing problems in the past and their anticipated effectiveness at managing problems in the future. Example items are: "Overall, how good do you think you have been in handling your problems during the last month?"; "Overall, how good do you think you will be at making things better when problems come up in the future?" Items were rated on a 4-point scale from "Not at all good" to "Very good." The items were summed. This scale has been shown to be an independent construct from active coping (Sandler et al., 2000) and to relate to low levels of mental health problems in children who experienced parental divorce. Internal consistency and reliability were adequate (Sandler et al., 2000). The coefficient alpha was .90 at the 15-year follow-up and .74 at pretest.

**Risk.** Risk at program entry was measured using a composite of child externalizing problems and environmental stressors. Externalizing problems were a composite of the parent-reported 33-item externalizing subscale of the CBCL

(Achenbach, 1991; α = .86) and the child-reported 27-item Divorce Adjustment Project Externalizing Scale (DAPES; Program for Prevention Research, 1985; α = .87). Both measures have demonstrated adequate reliability and construct and predictive validity (Achenbach, 1991; Hipke, Wolchik, Sandler, & Braver, 2002). Environmental stressors were a composite of the following constructs: interparental conflict, negative life events experienced by the child, maternal distress, reduced contact with father, and financial hardship. Interparental conflict was measured by mother- and child- report on the 13-item Children's Perceptions of Interparental Conflict Scale (Grych, Seid, & Fincham, 1992; child report α = .82; mother report α = .89). This measure has demonstrated adequate psychometric properties (Grych et al., 1992). Negative life events experienced by the child were measured by the Negative Life Events Scale (Sandler, Wolchik, & Braver, 1988), in which mothers and children endorsed which of the 33 general and divorce-specific events had occurred during the past month. This measure has adequate construct validity (Sandler, Wolchik, & Braver, 1988). Maternal distress was measured by the 27-item Psychiatric Epidemiology Research Interview (Dohrenwend, Shrout, Egri, & Mendelsohn, 1980; α = .91), which has demonstrated adequate reliability and construct validity (Dohrenwend et al., 1980). Reduced contact with father was operationalized as the number of missed visits with the child's father in the past month and financial hardship was measured by per capita income; both were reported by mothers. The risk score accounted for a large proportion of the variance in many outcomes longitudinally, including internalizing and externalizing problems, competence, and substance use (Dawson et al., 2004). Risk also moderated some program effects at both the 6- and 15-year follow-ups (Christopher et al., 2017;Wolchik, Sandler, Weiss, & Winslow, 2007).

**Covariates.** Pretest internalizing problems and self-esteem were included as covariates based on analyses comparing respondents and non-respondents at the 15-year follow-up (Wolchik et al., 2013). Although there were no significant attrition X group interactions, two significant main effects of attrition emerged: respondents had significantly lower self-esteem (20.45 vs. 21.53; $p < .03$) and significantly higher levels of internalizing problems (−.06 vs. −.30; $p < .03$) than non-respondents. Pretest self-esteem was measured using the Self-Perception Profile for Children (Harter, 1986; α=.71). Pretest internalizing problems were measured by a composite of standardized scores on the child-reported Children's Manifest Anxiety Scale (MASC; Reynolds & Richmond, 1978; α=.90), the child-reported Children's Depression Inventory (CDI; Kovacs, 1978), and the mother-reported Child Behavior Checklist internalizing subscale (CBCL; Achenbach, 1991; α=.87). The MASC and CBCL have demonstrated good to excellent reliability and validity (Lowe, 1998; March et al., 1999). The CDI has demonstrated good internal consistency and validity (Saylor, Finch, Spirito, & Bennett, 1984).

## Data Analytic Plan

**Attrition analysis.** In order to test for attrition effects, a chi-square analysis compared attrition by condition. Then, two two-way ANOVAs were conducted on the pretest scores of the coping and coping efficacy variables to test whether: (1) there was a main effect of attrition on coping and (2) whether the attrition effect on coping differed by intervention condition (Jurs & Glass, 1971).

**Confirmatory factor analysis.** Carver et al. (1989) do not provide instructions for grouping subscales of the COPE into higher order factors. Rather, they recommend performing a confirmatory factor analysis (CFA) on one's own data in order to determine the composition of higher order factors in the dataset (Carver, 2007). Generally, three-factor (e.g., Hasking & Oei, 2002; Ingledew et al., 1996; Kallasma & Pulver, 2000; Lyne & Roger, 2000) and four-factor (e.g., Carver et al., 1989; Crasovan & Sava, 2013) models of coping have been found to fit. Thus, both three- and four- factor solutions were examined.

Of the fourteen original subscales included in the COPE (Carver et al., 1989), twelve were administered at T6. Of these, the alcohol and drug disengagement subscale was not included in analyses because it has failed to load on factors in models in previous research (e.g., Carver et al., 1989; Lyne & Roger, 2000). Humor was not included in analyses because it has not been included in previous CFAs in the literature (e.g., Carver et al., 1989; Hasking & Oei, 2002; Lyne & Roger, 2000).

Using Mplus software (version 8; Muthén & Muthén, 1998-2011), a four-factor CFA was performed, loading ten of the subscales (active, planning, positive reinterpretation and growth, acceptance, restraint, venting of emotions, support seeking for emotional reasons, support seeking for instrumental reasons, denial, and mental disengagement) onto four previously identified factors (e.g., Carver et al., 1989; Crasovan & Sava, 2013): active coping, cognitive coping, emotion-focused coping, and avoidant coping (See Figure 1 for model), and onto three previously identified factors (e.g., Hasking & Oei, 2002; Ingledew et al., 1996; Kallasma & Pulver, 2000; Lyne &

Roger, 2000): problem-focused coping, emotion-focused coping, and avoidant coping (See Figure 2 for model). All subscales with a factor loading greater than or equal to .4 were retained (Matsunga, 2011; Stevens, 1992). If a factor loading was below the .4 cut-off, the subscale was removed and the CFA was re-run without it in the model.

**Outlier analysis.** Multivariate outlier analyses were used to identify influential cases in the dataset. Cook's distance, a global measure of influence, and the Difference in Fits (DFFITS), a measure of influence of cases on the regression equation, were used (Cohen, Cohen, West, & Aiken, 2003; 2013; Neter, Wasserman, & Kutner, 1989). Coping strategies and efficacy were regressed on the pretest autoregressive coping variable, pretest self-esteem, pretest internalizing, risk, gender, and condition. Cases were considered influential if they had a Cook's distance greater than or equal to 1 or a DFFITS value greater than .129 (equal to 2 divided by the square root of n=240), which is a size-adjusted cut-off (Belsley, Kuh, & Welsh, 1980).

**Descriptive analyses.** Descriptive analyses, including frequencies, distributions, standard deviations, skewness, kurtosis, and ranges, were conducted for all variables. Any non-normality was handled with appropriate methodologies.

**Covariates.** Pretest internalizing problems and pretest self-esteem were included as covariates based on previous analyses that found significant main attrition effects of these variables at the 15-year follow-up (Wolchik et. al., 2013). Pretest active coping was included as a covariate for problem-focused coping, pretest support coping was included as a covariate for emotion-focused coping, pretest avoidant coping was included as a covariate for avoidant coping, and pretest coping efficacy was included as a covariate for

coping efficacy. Additionally, because previous research has suggested that age, ethnicity, education, and pretest household income are significantly related to coping strategies (e.g., Armistead et al., 1990; Holahan & Moos, 1987; Sheu & Sedlacek, 2004; Zimmer-Gembeck & Skinner, 2016), these variables were examined as potential covariates. First-order correlations between these variables and coping strategies and coping efficacy were computed. Variables found to be significantly related to any outcome of interest were included in all models as covariates.

**Comparison of MP and MPCP conditions**. As in previous studies on the NBP (Christopher et al., 2017; Wolchik et al., 2000, 2002, 2007; 2013; 2018), two-tailed analyses of covariance (ANCOVAs) were conducted to test for differences between the MP and MPCP conditions in coping and coping efficacy. I did not expect there to be any significant differences between the conditions given that there have not been any significant differences between them on any of the other variables examined at the 15-year follow-up or previous assessments. If there were no differences, the MP and MPCP conditions were combined and compared to the LC. If there were significant differences, the MP and MPCP were compared to the LC separately.

**Primary analyses.** Multiple linear regressions using MPlus software (version 8; Muthén & Muthén, 1998-2011) were conducted to examine the main and interactive effects of the NBP. Missing data were handled using the full information maximum likelihood (FIML). I ran separate multiple regressions to examine the main effect of program condition on each dependent variable (coping strategies and coping efficacy) and tested whether gender or risk at program entry moderated these relations. Separate

regressions were conducted for gender and risk. Interaction terms were created by computing the product of program condition by gender and program condition by risk at program entry after all variables were centered.

For each model, predictors were entered in 3 steps: (1) covariates, including gender, risk, pretest internalizing, pretest self-esteem, pretest coping strategy, other covariates and covariates X condition interaction; (2) program condition; (3) gender X program condition OR risk X program condition interaction (i.e., two separate models). If the covariate X condition interaction was not significant, I removed the interaction from the model. If the interaction with gender or risk was not significant, I removed the interaction from the model and tested only the intervention main effect. Significant main effects indicated program effects on coping strategies and/or coping efficacy across the overall sample. Significant interactive effects indicated that the effect of program condition on coping/coping efficacy was moderated by gender or risk level. If an interaction term was significant, the interaction was plotted and probed following guidelines by Aiken and West (1991) to examine the relation at different levels of the moderator.

## Results

### Preliminary Analysis

**Attrition analysis.** The chi-square test comparing attrition by condition was non-significant. Analyses conducted using two two-way ANOVAs revealed that there were no significant main effects of attrition nor attrition by condition interaction effects for any of the dependent variables ($p>.05$ for all)

**Confirmatory factor analysis.** Non-significant chi-square tests indicate a good-fitting model; however, because chi-square tests are very influenced by sample size, alternative measures of fit (Kenny, 2014) were also used. Hu and Bentler's (1999) recommended values for a good-fitting model were used: Comparative Fit Index (CFI) and Tucker Lewis Index (TLI) values above .90; Root Mean Square Error of Approximation (RMSEA) values below .08; Standardized Root Mean Square Error (SRMR) values below .08.

The four-factor model (i.e., active, cognitive, emotion, and avoidant coping) did not adequately fit the data: ($\chi^2$ = 122.54, *df* = 15, *p* < .001; CFI = 0.848; TLI= .764; RMSEA = 0.130 (.107-.155); SRMR=.086). Modification indices suggested that the removal of the "venting of emotions" subscale would improve fit due to cross loadings on all other factors. Removal of venting produced a model with an adequate fit ($\chi^2$ = 55.63, *df* = 21, *p* < .001; CFI= 0.94; TLI= .891; RMSEA = 0.093 (.063-.123); SRMR= .055; See Figure 3).

The three-factor model (i.e., problem-focused coping, emotion-focused coping, and avoidant coping) did not adequately fit the data: ($\chi^2$ = 122.25, *df* = 33, *p* < .001; CFI= 0.855; TLI= .802; RMSEA= 0.119 (.097-.142); SRMR=.087). Similar to the analysis for the four-factor model, modification indices suggested the removal of the "venting of emotions" subscale would improve fit due to cross loadings on all other factors. Removal of this subscale produced a model with an adequate fit to the data ($\chi^2$ = 53.66, *df* = 24, *p* < .001; CFI= 0.95; TLI=.92; RMSEA = 0.081 (.052 - .110); SRMR=.055). Given the removal of the venting subscale, "Emotion-focused" coping was renamed as "Support"

coping to better reflect its two subscales: support seeking for emotional reasons and support seeking for instrumental reasons.

Because both the three-factor and four-factor models adequately fit the data, the two models were compared to each other. Given the non-nested nature of the models, the Akaike Information Criteria (AIC) and Bayesian Information Criteria (BIC), two comparative measures of fit, were used. Lower values indicate a better fitting model (Kenny, 2015). The three- factor model (AIC: 1671.39, BIC: 1768.80) had lower values on both fit indices than the four-factor model (AIC: 1678.28, BIC: 1785.43). Thus, the more parsimonious three-factor model was selected.

All of the subscales for the three-factor model met inclusion criteria (factor loading greater than or equal to .4; See Table 1) with the exception of restraint coping, which had a factor loading of .386. As such, restraint coping was removed from the model and the three-factor CFA was re-run. The removal of restraint coping improved the fit of the model ($\chi^2$ = 39.24, *df* = 18, $p < .01$; CFI= 0.96; TLI=.93; RMSEA = 0.079 (.045 - .113); SRMR=.05). The three-factor model with eight subscales was used for all analyses (See Figure 4). The alphas for problem-focused, support, and avoidance subscales were .90, .87, and .83, respectively.

**Outlier analysis.** No case met criteria for being an outlier. For problem-focused coping, support coping, avoidant coping, and coping efficacy, the highest Cook's distances were .089, .074, .078, and .048, respectively. The highest DFFITS values were |.049|, |.095|, |.038|, and |.073|, respectively.

**Descriptive statistic summary.** Descriptive analyses were conducted for all study variables (see Table 2). Skewness and kurtosis of all variables fell within an

acceptable range of being normally distributed (skewness between -2 and 2, kurtosis between -7 and 7; West, Finch, & Curran, 1995). Means and standard deviations by group for the NBP vs. LC and the individual groups (MP & MPCP) vs. LC, are presented in Tables 3 and 4, respectively.

First-order correlations between study variables were calculated (see Table 5). Problem-focused coping at T6 was positively correlated with concurrent support coping, coping efficacy, and pretest family income and negatively correlated with avoidant coping and risk. In addition, support coping at T6 was positively correlated with coping efficacy, negatively correlated with avoidant coping and risk, and with gender, such that males reported less support coping. Avoidant coping at T6 was negatively associated with coping efficacy and pretest self-esteem and positively correlated with risk. Coping efficacy at T6 was negatively correlated with risk and pretest internalizing problems.

Pretest active coping was positively correlated with pretest support coping, avoidant coping, coping efficacy, and self-esteem. Pretest support coping was positively correlated with pretest avoidant coping and coping efficacy and negatively correlated with pretest internalizing symptoms, gender, such that girls engaged in more support coping, and family income. Pretest avoidant coping was positively correlated with gender, such that males reported more avoidant coping, risk, and internalizing symptoms, and negatively correlated with pretest family income. Pretest coping efficacy was positively correlated with pretest self-esteem and negatively correlated with pretest internalizing symptoms and risk.

Risk was positively correlated with pretest internalizing symptoms and gender, such that males reported higher risk, and negatively correlated with pretest self-esteem

and family income. Pretest internalizing was significantly negatively correlated with self-esteem. Gender did not correlate significantly with any potential covariates.

**Covariates.** Of the five potential covariates, pretest household income was significantly related to problem-focused coping. Thus, pretest income was included as a covariate in the regression models. In terms of relations between the potential covariates, emerging adult education was correlated with ethnicity, such that Non-Hispanic/Latino individuals reported higher educational attainment, and race was negatively correlated with age, such that Caucasian participants were younger.

**Comparison of MP and MPCP conditions.** The ANCOVAs showed that there were no significant differences between the MP and MPCP conditions on problem-focused coping, support coping, or coping efficacy. Thus, as has been done in previous work (Christopher et al., 2017; Dawson-McClure et al., 2004; Wolchik, Sandler, et al., 2002; Wolchik, West, et al., 2000; Wolchik et al., 2013; Wolchik et al., 2018; Zhou et al., 2008), these two conditions were combined for the analyses of these outcomes. However, the MP and MPCP conditions were significantly different from each other on avoidant coping, controlling for pretest avoidant coping ($F$ (1, 132) = 5.119, $p$=.025). Emerging adults in the MP condition had lower scores on avoidant coping than those in the MPCP condition (MP: $M$ = -.032, $SD$ = .128; MPCP: $M$ = .023 $SD$ = .148) ($d$=.39). Thus, the two conditions were compared to the LC separately for the avoidant coping analyses. Tukey's honest significant difference post-hoc test were also run to examine all pairwise comparisons. The overall Tukey's test was marginally significant (p=.084). A marginal difference (p=.079) between the MP and MPCP conditions occurred on avoidant coping.

No other significant or marginal differences occurred. However, these findings should be interpreted with caution because the sample sizes for each group were different.

**Primary Analyses**

Regression analyses were used to examine the relations between program condition and coping strategies and coping efficacy and whether risk and gender moderated these relations. Pretest coping/coping efficacy, pretest family income, pretest self-esteem, and pretest internalizing symptoms were included as covariates in all models. Risk was included as a covariate in models testing gender as a moderator, and gender was included as a covariate in models testing risk as a moderator. As no covariate X condition interactions were significant, they were removed from all models and the simpler models were rerun.

**Avoidant coping.** Because there was a significant difference between the MP and MPCP conditions on avoidant coping, a three-group model was conducted by including two dummy variables such that the MP and MPCP were compared to the LC condition separately.

For the MP, as shown in Table 6, there was a significant program by risk interaction ($\beta$= -.285, p=.027), such that those at higher risk reported less avoidant coping than those at higher risk in the LC. This regression coefficient has a small-medium effect ($\beta$= .14 for small effect; $\beta$= .39 for medium effect; $\beta$= .59 for large effect; Fritz & Mackinnon, 2007). This interaction was probed for the region of significance point-by-point (Aiken & West, 1991). The interaction was significant beyond a risk score $\geq$ -.079; this included 50.4% of the sample (See Figure 5). The main effect was also

significant ($\beta$= -.175, p=.046) and small-medium in magnitude ($d$=.29), such that those in the MP reported less avoidant coping than those in the LC. Pretest self-esteem was marginally related to avoidant coping ($\beta$= -.144, $p$=.082), such that higher self-esteem predicted less avoidant coping. Risk was significant ($\beta$= .495, $p$=.007), such that individuals with higher risk at program entry reported higher avoidant coping. The gender X MP interaction was not significant ($\beta$= -.111, $p$=.n.s.).

For the MPCP, neither the program by risk interaction($\beta$= -.092, $p$= n.s.) nor program by gender interaction was significant ($\beta$= -.146, $p$=n.s.). Program condition was not a significant predictor ($\beta$= .013, $p$=n.s.).

**Problem-focused coping.** Neither the program condition by gender interaction (standardized regression ($\beta$)= .063, $p$=n.s.) nor the program condition by risk interaction ($\beta$= .024, $p$=n.s.) was significant. After removing these interactions from the models, there was a marginal main program effect, such that individuals in the NBP reported marginally higher problem-focused coping than those in the LC ($\beta$= .16, $p$=.074; see Table 7). The effect was small in magnitude ($d$=.18). Risk was significantly, negatively related to problem-focused coping, such that those with higher risk at program entry reported less problem-focused coping ($\beta$= -.370, $p$<.001).

**Support coping.** Neither the program condition by gender interaction ($\beta$= .134, $p$=n.s.) nor the program condition by risk interaction ($\beta$= -.070, $p$=n.s.) was significant. After removing the interactions from the models, the main effect of the NBP vs. LC remained non-significant ($\beta$= .098, $p$=n.s.). Gender was significantly related to support coping, with females reporting more support coping than males ($\beta$= -.257, $p$=.000). Risk

was significantly related to support coping ($\beta$= -.244, $p$=.012), such that individuals at higher risk reported less support coping (see Table 8).

**Coping efficacy.** Neither the program condition by gender interaction ($\beta$= -.065, $p$=n.s.) nor the program condition by risk interaction ($\beta$= -.123, $p$=n.s.) was significant. After removing the interactions from the model, the main effect of condition remained non-significant ($\beta$= .019, $p$=n.s.). Gender ($\beta$= .136, $p$=.075) was marginally related to coping efficacy, such that women had marginally lower scores than men (see Table 9).

## Discussion

This is the first study to examine the effects of a brief preventive parenting-focused intervention delivered in childhood on coping strategies and coping efficacy in emerging adulthood. Gender and pretest risk at program entry were examined as moderators of the program effects. Because avoidant coping differed across the mother-only and mother-child conditions, these two groups were each compared to the literature control condition. For all other outcomes, the mother-only and mother-child programs did not differ significantly and thus they were combined and compared to the literature control. For avoidant coping, pretest risk interacted with program participation in the mother-only condition, such that offspring entering the program with higher pretest risk reported significantly less avoidant coping. Conversely, there were no significant interactive or main program effects in the mother-child condition on avoidant coping. There was a marginal program effect on problem-focused coping; emerging adults who had participated in the NBP had higher levels of problem-focused coping. There were no significant main effects nor interactive program by risk or program by gender effects on support coping or coping efficacy. The relation between the findings and the prior

literature and theoretical models on youth's coping; the implications of the findings for research, policy, and practice; the limitations of the study; and directions for future research are discussed below.

## Coping Strategies

**Avoidant coping.** In the mother-only program, for those with higher pretest risk, the program led to greater decreases in avoidant coping relative to those in the literature control condition. This effect was small to medium in magnitude, which is consistent with those traditionally reported in social science literature (e.g., Fergusson, 2009; McClelland & Judd, 1993). Similar program by risk interactions have been found for a few variables in other studies on the NBP's 15-year follow-up effects, including maternal blame, acceptance of the divorce, and competencies, and in earlier assessments for internalizing and externalizing problems; alcohol, marijuana, and other drug use; competence; and mental disorders (Christopher et al., 2015; 2017; Dawson-McClure, Sandler, Wolchik & Millsap, 2004; Wolchik et al., 2002; 2007). In all cases, families entering the program with higher levels of pretest risk showed greater improvements in functioning. This interactive effect is also consistent with findings from trials of other preventive programs (e.g., Brown & Liao, 2002; Johnson et al., 1990; Olds et al., 2002; Sandler et al., 2014).

The importance of this finding is highlighted by research documenting that avoidant coping strategies are associated with maladjustment in myriad areas in adulthood. Greater use of avoidant coping is longitudinally related to increased mental health problems (Aldwin & Revenson, 1987), depressive symptoms (Seiffge-Krenke &

Klessinger, 2000), distress (Berghuis & Stanton, 2002), elevated alcohol consumption and drinking problems (Cooper, Russell, Skinner, Frone, & Mudar, 1992), and test anxiety (Weiner & Carton, 2012), and decreased well-being (Birdit, Nevitt, & Almeida, 2016) and interpersonal functioning (Shapiro & Levendosky, 1999). Cross-sectionally, greater avoidant coping is related to more self-harm behaviors (Marusic, & Goodwin, 2006), higher cortisol levels (O'Donnell, Badrick, Kumari, & Steptoe, 2008), and perfectionism (Dunkley & Blankstein, 2000) as well as poorer physical functioning (Eisenburg, Shen, Schwarz, & Mallon, 2011). Lower avoidant coping is especially important during emerging adulthood because mental health problems and problematic substance use increase during this developmental stage (Arnett, 2005; Kessler et al., 2005). Problems such as these are particularly likely to occur for emerging adults whose parents divorced in childhood. Illustratively, substance use problems, including daily smoking and problematic alcohol consumption, and depression are more common among emerging adults from divorced families than non-divorced two-parent families (e.g., Huurre, Junkkari, & Aro, 2006; Uphold-Carrier& Utz, 2012).

Two other studies besides the NBP have examined avoidant coping as an outcome of a parenting intervention, with mixed results. Using a waitlist control condition, Mendlowitz et al. (1999) compared the efficacy of three 12-week programs, parent-child, child-only, or parent-only, that taught coping skills and desensitization. Participants were children aged 7-12 who had been referred to treatment for anxiety and their parents. Relative to the waitlist control condition, all three active conditions led to significantly less avoidant coping at posttest. These results may have been due to the inclusion of a desensitization component. No follow-up was conducted. Compas and colleagues (2010)

compared a 12-session (8 weekly followed by 4 monthly sessions) family group cognitive-behavioral treatment for depressed parents and their children aged 9-15 to a self-study condition. These researchers assessed disengagement coping, which is similar to avoidant coping. Disengagement coping was not examined at posttest; the effects at the 18-month follow-up were not significant (Watson et al., 2014). Neither study examined coping in subsequent developmental stages.

In previous examinations of the NBP, the main effects and interactive effects of the program with pretest risk or gender on avoidant coping were not significant at posttest or the 6-year follow-up (Velez et al., 2011; Wolchik et al., 2000). Further, the mother-only and mother-child conditions did not differ on avoidant coping in previous waves (Velez et al., 2011; Wolchik et al., 2000). The magnitude of the effect on avoidant coping appears to have increased over time, particularly for those who entered the program at high risk. This lagged effect is consistent with a cascading pathways framework (Cummings, Davies, & Campbell, 2000), which proposes that changes in functioning in one domain initiate a series of effects that, over time, impact functioning in other domains later in development.

Although the current study did not examine the pathways that may explain why the mother-only program, but not the mother-child program, led to lower levels of avoidant coping, it is interesting to speculate about possible explanations. Because the mothers in the mother-child group knew that their children were directly instructed on effective coping skills, it is possible that they did not engage their children in discussing, practicing, and implementing effective coping skills to the same degree that mothers in

the mother-only condition did. Similarly, children in the mother-child condition may have been less likely to ask their mothers for help in coping with a problem because they did not perceive that they needed help after learning about coping strategies in group. Over time, these dynamics may have contributed to the difference in use of avoidant coping across the two programs in emerging adulthood.

**Problem-focused coping.** The NBP led to a marginal increase in problem-focused coping. Although this effect was marginal, it is important because the use of problem-focused coping is significantly related to myriad outcomes, including higher levels of emotional and physical well-being (Lapierre & Allen, 2006), social and academic competence (Compas et al., 2001), physical functioning and health outcomes (Penley, Tomaka, & Wiebe, 2002), and social support (Chao, 2010), and lower levels of internalizing and externalizing symptoms (Compas et al., 2001), emotional and behavior problems (Compas, Malcarne, & Fondacaro, 1988), and work-family conflict (Lapierre & Allen, 2006). Also, several of the long-term negative effects of parental divorce in childhood that appear during emerging adulthood, such as greater mental health problems (Chase-Landale, Cherin & Kiernan, 1995), lower educational attainment, and problems in interpersonal relationships (Mustonen, Huurre, Kiviruusu, Haukkala, & Aro, 2011), are inversely related to problem-focused coping. Thus, increased problem-focused coping at this developmental stage may reduce risks for the long-term individual and societal effects of divorce.

This finding extends previous research on effects of the NBP at the 6-year follow-up, which found indirect intervention-related increases in active coping through posttest

improvements in mother-child relationship quality (Velez et al., 2011). This finding also extends the limited research on other parenting programs that have examined program effects on child coping. Mendlowitz and colleagues (1999) found that children in a parent-child program used more active coping strategies at posttest compared with those in a child-only or mother-only program and waitlist control condition, though no follow-up was conducted. In Compas and colleagues' program (2010; Watson et al., 2014) for children aged 9-15 years and parents with a history of major depressive disorder, which included a focus on teaching secondary control coping skills, program effects on primary control coping at posttest and follow-up were not significant. Tein and colleagues' (2006) study of a parent and child program for youth aged 8-18 who recently experienced the death of a parent examined positive coping, a combination of active coping and coping efficacy. They found intervention effects on positive coping at posttest and at an 11-month follow-up (Sandler et al., 2003; Tein et al., 2006). The current study extends the findings of these other studies by examining effects in emerging adulthood and demonstrating that the addition of a child-component is not required to have long-term effects.

**Support coping**. Participation in the NBP did not affect support coping at the 15-year follow-up. To examine whether program effects occurred at earlier points, supplemental analyses were conducted. These analyses revealed that the intervention effects at posttest and 6 months after the intervention were not significant. Data on support coping were not collected at the 6-year follow-up. The only other study that examined effects of a parenting intervention on support coping found no significant intervention effects at posttest (Mendlowitz et al., 1999).

**Coping efficacy.** Participation in the NBP did not lead to higher levels of coping efficacy at the 15-year follow-up. This is somewhat surprising, given that indirect intervention effects on coping efficacy were found at the 6-month and 6-year follow-ups (Velez et al., 2011). This is also surprising given the correlation (r = .54) between problem-focused coping and coping efficacy. It may be that coping efficacy is reflective of more proximal experiences of successes or failures in coping with challenges. Thus, intervention effects may be less likely to be maintained over time for coping efficacy. The only other study to examine program effects on coping efficacy included coping efficacy in a composite with active coping (Tein et al., 2006). At an 11-month follow-up, there was a significant program effect on positive coping.

**Other effects.** Although not a central focus, it is interesting to note that pretest risk not only significantly moderated the program effect on avoidant coping in the mother-only condition, it was also significantly related to the use of all three coping strategies and coping efficacy at the 15-year follow-up. Controlling for other predictors, pretest risk was positively related to avoidant coping and negatively related to problem-focused coping and support coping. Future research should examine the pathways through which risk leads to coping strategies over development. Clinically, this finding emphasizes the importance of research aimed at identifying and intervening with children at-risk for developing long-term negative outcomes.

Somewhat surprisingly, none of the pretest coping strategies or coping efficacy were correlated with their respective scores on coping strategies or coping efficacy scores 15 years later. Because of the longitudinal nature of the data, the measure used for pretest coping strategies was different than the measure used in emerging adulthood. Thus, the

lack of significant correlations may be due, in part, to the differences in the measure of coping at these two time points. It is also possible that these findings reflect a lack of stability of coping across developmental stages. To explore this possibility, partial correlations of coping strategies and coping efficacy at pretest, the 6-year follow-up, and the 15-year follow-up were run, controlling for intervention group. Additionally, bivariate correlations were run at the same time points for the LC group only. Both methods yielded very similar results. For active coping, the pretest and 6-year assessments were not significantly related to each other, but there was a significant correlation (r=.31) between active coping at the 6-year follow-up and the 15-year assessment of problem-focused coping. For avoidant coping, none of the pretest, 6-year, or 15-year assessments were significantly correlated. Support coping was not measured at the 6-year follow-up. For coping efficacy, which used the same measure at all time points, the correlations between pretest and the 6-year follow-up assessments (r=.23) and the 6-year and the 15-year follow-up assessments (r=.27) were significant. These results are consistent with Wadsworth and colleagues' (2006) view that coping fluctuates in childhood as children try out many different strategies and becomes more stable and trait-like over development.

**Implications**

The current study adds to the existing literature in two ways. It furthers our understanding of the long-term effects of the NBP. This study demonstrates that a relatively brief preventive parenting intervention delivered in childhood had long-term effects on maladaptive (i.e., avoidant) coping strategies at a significant level and adaptive (i.e., problem-focused) coping strategies at a marginal level. Thus, participation in the

NBP is helpful above and beyond reducing serious clinical outcomes like mental health problems and substance use (Wolchik et al., 2013). Additionally, this study extends previous research that found differential effects of the program depending on initial level of risk (e.g., Christopher et al., 2017; Wolchik et al., 2002; 2007). Taken in context of the larger literature, which has found that the majority of children adjust favorably following parental divorce (Hetherington, Bridges, & Insabella, 1998), preventive efforts should target this high-risk subgroup, as those at higher risk are likely to derive the greatest benefit from participation.

The current study also adds to the larger literature on coping. To date, only three research groups have examined the effects of a parenting interventions provided in childhood on coping outcomes longitudinally, including the NBP (Compas et al., 2010; Tein et al., 2006; Velez et al., 2011; Watson et al., 2014). Generally, these parenting programs have had positive effects on children's coping at posttest and into adolescence, though the effects on the specific coping strategies that were affected varied between programs and time points. Previous evaluations of the NBP and other prevention programs have found that intervention effects tend to increase in magnitude and scope over time (Sandler et al., 2008; Wolchik et al., 2007). The pattern in our sample is consistent with these findings. There was no significant program effect on avoidant coping until emerging adulthood, and the effect on problem-focused/active coping increased substantially from pretest to mid-to-late adolescence. These data provide support for the argument that examining the effects of prevention programs offered in childhood on functioning in subsequent developmental periods is needed to identify their lagged effects (Coie et al., 1993). Longitudinal research on coping over different

developmental periods can help to inform researchers about the long-term effects of interventions on coping and inform theories on the developmental trajectories of coping.

This study also has several implications for policy and practice. Given the societal cost of adjustment problems in offspring from divorced families during emerging adulthood and the significant relations between these problems and avoidant and active coping (Compas et al., 2001; Rehm et al., 2009), the current intervention effects have important implications for reducing the public health burden of divorce. By demonstrating that emerging adults' coping processes can be modified by parenting programs delivered during childhood, the current findings add support to the evidence that dissemination of preventive programming targeting divorcing families, especially those at elevated risk, can lead to cost savings. Additionally, in this study, the mother-only condition outperformed or was equally as effective as the mother-child condition for all coping strategies and coping efficacy. Given that single-component programs have fewer implementation challenges than dual-component programs (e.g., cost, resources, space, etc.), the current findings support the implementation of the single-component condition of the NBP. Further, clinicians working to improve the coping efforts of children who have experienced parental divorce should consider incorporating parent training into the treatment. Programs that incorporate a child component should emphasize the importance of parents helping their children practice, develop, and implement the coping skills they learn through the program. Even in the context of a group that teaches coping to children, it seems important for parents to help their child develop and implement adaptive coping strategies in the real world. Including a session

where parents and children work together to respond to a child's problem would facilitate this process.

**Limitations**

Several limitations should be noted. First, there are aspects of the sample that limit the generalizability of the findings. Because the sample consisted exclusively of emerging adults whose parents divorced in their childhood, the results may not generalize to other at-risk or non-divorced samples. Additionally, the families had enrolled in a study of a prevention program with numerous eligibility criteria, such as children living primarily with their mothers and neither mothers nor children receiving treatment for mental health problems, limiting the generalizability to the larger population of divorcing families. Further, the vast majority of the sample was non-Hispanic white and middle class. Second, the size of the sample may have limited the power to detect direct and interactive effects of the program. Third, the processes that may explain the long-term effects were not examined.

**Future Directions for Research**

Future research can extend the findings of this study in several ways. First, future work could examine the processes through which the program influenced coping in emerging adulthood. For example, previous research has identified mother-child relationship quality (Velez et al., 2011) and parental warmth and responsiveness (Watson et al., 2014) as mediators of intervention effects on coping. Second, future research could examine the longitudinal effects of mother-child vs. mother-only programs in other samples to see if the finding that mother-only programs predict better long-term coping

outcomes replicates. Third, replicating these findings with more heterogeneous samples would address the generalizability of the findings.

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# APPENDIX A

# TABLES

Table 1.

*Factor Loadings for the Three-Factor Models of Coping*

| Model | Active | Plan | Positive Reinterp. & Growth | Accept | Restraint | Venting of Emotion | Support Seeking for Instrmntl. Reasons | Support Seeking for Emotnl. Reasons | Denial | Mental Disegage |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 subscales | .86 | .93 | .67 | .42 | .39 | .22 | .96 | .67 | .71 | .56 |
| 9 subscales (no venting of emotions) | .86 | .93 | .67 | .42 | .39 | -- | .96 | .67 | .70 | .56 |
| 8 subscales (no venting, no restraint) | .86 | .93 | .67 | .42 | -- | -- | .96 | .67 | .71 | .56 |

Table 2.

*Descriptive Information on Study Variables*

| Variable | N | *M (SD)* | Range | Skewness | Kurtosis |
|---|---|---|---|---|---|
| Problem-Focused Coping (T6) | 190 | 0.00 (.20) | -.56 – .32 | -.52 | -.39 |
| Support Coping (T6) | 190 | 0.00 (.54) | -.15 – .84 | -.32 | -.49 |
| Avoidant Coping (T6) | 190 | 0.00 (.15) | -.17 – .52 | 1.33 | 1.37 |
| Coping Efficacy (T6) | 186 | 3.40 (.49) | 1.75 – 4.00 | -.75 | .25 |
| Internalizing (T1) | 240 | 0.00 (1.00) | -1.88 – 3.12 | .70 | .17 |
| Self-esteem (T1) | 239 | 20.67 (2.83) | 11.00 – 14.00 | -.77 | .07 |
| Family Income (T1) [a] | 240 | 5.82 (3.07) | 1.00 – 21.00 | 1.66 | 4.88 |
| Active Coping (T1) | 240 | 10.34 (1.84) | 5.50 – 15.00 | -.05 | -.32 |
| Support Coping (T1) | 240 | 10.34 (3.22) | 4.50 – 18.00 | .06 | -.79 |
| Avoidant Coping (T1) | 240 | 10.29 (1.79) | 5.33 – 14.00 | -.23 | -.25 |
| Coping Efficacy (T1) | 240 | 2.91 (0.44) | 1.29 – 4.00 | -.20 | .39 |
| Emerging Adult Gender [b] | 240 | .51 (.50) | 0.00 – 1.00 | | |
| Risk (T1) | 240 | 0.00 (1.00) | -2.18 – 3.37 | .44 | .05 |

[a]Pretest Family Income is coded as 1= Less than or equal to $5,000… 21= over $100,000). [b]Gender is coded 0 = female, 1 = male. Internalizing (T1), and Risk (T1) are standardized. All continuous variables were centered for analyses.

Table 3.

*Means and Standard Deviations of Outcome Variables by Program Condition: NBP and. LC*

| Outcome | New Beginnings Program[1] | | Literature Control | |
|---|---|---|---|---|
| | M | SD | M | SD |
| Problem-Focused Coping | .010 | .198 | -.024 | .176 |
| Support Coping | .019 | .532 | -.045 | .568 |
| Avoidant Coping | -.003 | .142 | .007 | .159 |
| Coping Efficacy | .003 | .473 | -.008 | .496 |

*Note*: [1]The New Beginnings Program is a combination of the Mother-Child Program and the Mother-Only Program.

Table 4.

*Means and Standard Deviations of Outcome Variables by Program Condition: MPCP, MP and LC*

| Outcome | Mother-Child Program | | Mother-Only Program | | Literature Control | |
|---|---|---|---|---|---|---|
| | M | SD | M | SD | M | SD |
| Problem-Focused Coping | -.012 | .213 | .034 | .179 | -.024 | .176 |
| Support Coping | -.053 | .563 | .010 | .488 | -.045 | .568 |
| Avoidant Coping | .024 | .149 | -.032 | .130 | .007 | .159 |
| Coping Efficacy | -.019 | .498 | .028 | .447 | -.008 | .496 |

*Note:* Tukey's HSD post-hoc tests were run to test for significant differences. The overall model for avoidant coping was marginally significant (p=.084). As such, the pairwise comparisons were examined. There was a marginally significant difference (p=.079) between the MP and MPCP conditions. No other strategy had significant differences. Analyses were conducted in SPSS, therefore missing data are not taken into account. Further, these findings should be interpreted with caution, because the sample sizes for each group were different.

Table 5.

*Intercorrelations of Outcome Variables, Moderators, and Covariates*

| Variable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Problem-Focused Coping (T6) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2. Support Coping (T6) | .65** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 3. Avoidant Coping (T6) | -.48** | -.23** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4. Coping Efficacy (T6) | .54** | .28** | -.43** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 5. Active Coping (T1) | .08 | .03 | -.03 | .09 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 6. Support Coping (T1) | .01 | .09 | .06 | -.05 | .52** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 7. Avoidant Coping (T1) | -.09 | -.08 | .09 | -.03 | .40** | .18** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 8. Coping Efficacy (T1) | -.03 | -.04 | -.06 | -.05 | .52** | .36** | .12 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9. Gender [a] | -.09 | -.30** | .02 | .10 | -.05 | -.17** | .14* | -.07 | -- | -- | -- | -- | -- | -- | -- | -- |
| 10. Risk (T1) | -.30** | -.21** | .20** | -.15* | -.06 | -.03 | .17** | -.18** | .20** | -- | -- | -- | -- | -- | -- | -- |
| 11. Internalizing (T1) | -.09 | -.04 | .14 | -.15* | -.05 | -.14* | .15* | -.26** | .01 | .58** | -- | -- | -- | -- | -- | -- |
| 12. Self-esteem (T1) | -.03 | -.02 | -.16** | .10 | .17** | .11 | .02 | .24** | -.03 | -.19** | -.34** | -- | -- | -- | -- | -- |
| 13. Family Income (T1) [b] | .15* | .10 | .00 | .04 | -.03 | -.14* | -.14* | -.02 | -.10 | -.35** | -.08 | .02 | -- | -- | -- | -- |
| 14. Age | -.02 | -.01 | .01 | .03 | .08 | .09 | -.02 | .13 | -.11 | .02 | -.05 | .01 | -.01 | -- | -- | -- |
| 15. Ethnicity [b] | .02 | -.06 | -.05 | .09 | .03 | .06 | .09 | .06 | -.01 | .06 | .14 | -.04 | -.10 | -.03 | -- | -- |
| 16. Race | .12 | .12 | -.03 | .06 | .06 | .11 | -.07 | .05 | .02 | .03 | -.06 | .01 | .06 | -.20** | -.02 | -- |
| 17. Emerging Adult Education (T6) [e] | -.04 | -.06 | -.09 | .03 | .12 | .05 | .06 | .10 | -.03 | -.05 | -.01 | .06 | .04 | .01 | .20* | -.06 |

**p < .01; *p < .05 [a] Gender is coded 0 = female, 1 = male. [b] Pretest Family Income is coded as 1= Less than or equal to $5,000…21= over $100,000). [c] Ethnicity is coded 1=Hispanic/Latino, 2= not Hispanic/Latino. [d] Race is coded 0= Native American, Alaskan Native, Asian, African American, Native Hawaiian, or Pacific Islander, 1= Caucasian. [e] Emerging adult education is coded as 1 = 8th grade or less, 2 = 9th-11th grade, 3 =12th grade, high school diploma, GED, 4 = 1-year college, vocational/technical training, 5 = 2 years college or technical, AA degree, 6 = 3 years, but no college degree, 7 = BS or BA degree, 8 =MS, MA, MFA, etc., 9 = Ph.D., JD, MD, etc.

Table 6.

*Regression Analysis Predicting Avoidant Coping by Program Condition and Risk, controlling for pretest covariates*

| Predictor | B | SE(B) | $\beta$ | *p* |
|---|---|---|---|---|
| MPCP [a] | -.003 | .028 | -.011 | .907 |
| MP [b] | -.055 | .028 | -.175 | .038* |
| Gender [c] | -.001 | .021 | -.002 | .982 |
| Pretest Income | .004 | .004 | .093 | .209 |
| Pretest Avoidant Coping | .003 | .006 | .039 | .561 |
| Pretest Self-Esteem | -.008 | .004 | -.144 | .082† |
| Pretest Internalizing | -.006 | .014 | -.042 | .659 |
| Risk | .074 | .030 | .495 | .007* |
| MPCP*Risk | -.024 | .033 | -.092 | .448 |
| MP*Risk | -.066 | .031 | -.285 | .027* |

**p < .01; *p < .05; †p < .10. [a] MPCP is coded as LC=0, 1=MPCP. [b] MP is coded as LC=0, 1=MP. [c] Gender is coded 0 = female, 1 = male. [d] Pretest income is coded as 1= Less than or equal to $5,000… 21= over $100,000).

Table 7.

*Regression analysis predicting Problem-Focused Coping by Program Condition, controlling for pretest covariates (without moderators in the model)*

| Predictor | B | SE(B) | $\beta$ | $p$ |
|---|---|---|---|---|
| Condition [a] | .048 | .027 | .116 | .074† |
| Risk | -.072 | .021 | -.373 | .000** |
| Gender [b] | -.009 | .027 | -.023 | .745 |
| Pretest Income [c] | .000 | .005 | .002 | .976 |
| Pretest Active Coping | .009 | .006 | .090 | .173 |
| Pretest Self-Esteem | -.005 | .005 | -.072 | .321 |
| Pretest Internalizing | .014 | .018 | .074 | .424 |

**p < .01; *p < .05; †p < .10. [a] Condition is coded 0 = LC, 1 = NBP. [b] Gender is coded 0 = female, 1 = male. [c] Pretest income is coded as 1= Less than or equal to $5,000… 21= over $100,000).

Table 8.

*Regression analysis predicting Support Coping by Program Condition, controlling for pretest covariates (without moderators in the model)*

| Predictor | B | SE(B) | $\beta$ | $p$ |
|---|---|---|---|---|
| Condition [a] | .115 | .081 | .098 | .147 |
| Risk | -.134 | .054 | -.244 | .012* |
| Gender [b] | -.280 | .080 | -.257 | .000** |
| Pretest Income [c] | -.005 | .015 | -.031 | .708 |
| Pretest Support Coping | .012 | .012 | .070 | .328 |
| Pretest Self-Esteem | -.009 | .015 | -.045 | .570 |
| Pretest Internalizing | .038 | .051 | .070 | .455 |

**p < .01; *p < .05; †p < .10. [a] Condition is coded 0 = LC, 1 = NBP. [b] Gender is coded 0 = female, 1 = male. [c] Pretest income is coded as 1= Less than or equal to $5,000… 21= over $100,000).

Table 9.

*Regression Analysis Predicting Coping Efficacy from Program Condition (Without Moderators in the Model)*

| Predictor | B | SE(B) | $\beta$ | $p$ |
|---|---|---|---|---|
| Condition [a] | .020 | .077 | .019 | .795 |
| Risk | -.072 | .049 | -.150 | .141 |
| Gender [b] | .131 | .073 | .136 | .075† |
| Pretest Income [c] | .001 | .011 | .004 | .955 |
| Pretest Coping Efficacy | .060 | .080 | .055 | .455 |
| Pretest Self-Esteem | .008 | .013 | .047 | .547 |
| Pretest Internalizing | -.021 | .044 | -.044 | .632 |

**p < .01; *p < .05; †p < .10. [a] Condition is coded 0 = LC, 1 = NBP. [b] Gender is coded 0 = female, 1 = male. [c] Pretest income is coded as 1= Less than or equal to $5,000… 21= over $100,000).

# APPENDIX B

## FIGURES

Figure 1.

*Proposed Four-Factor Model of Coping using the COPE Questionnaire*

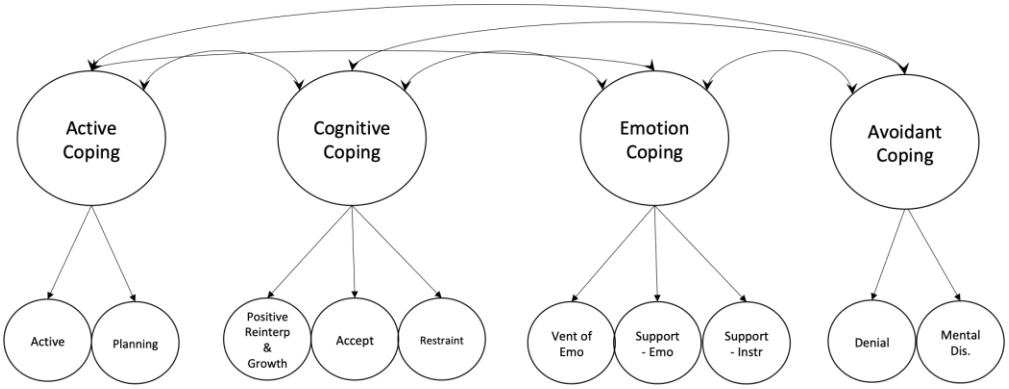



Figure 2.

*Proposed Three-Factor Model of Coping using the COPE Questionnaire*

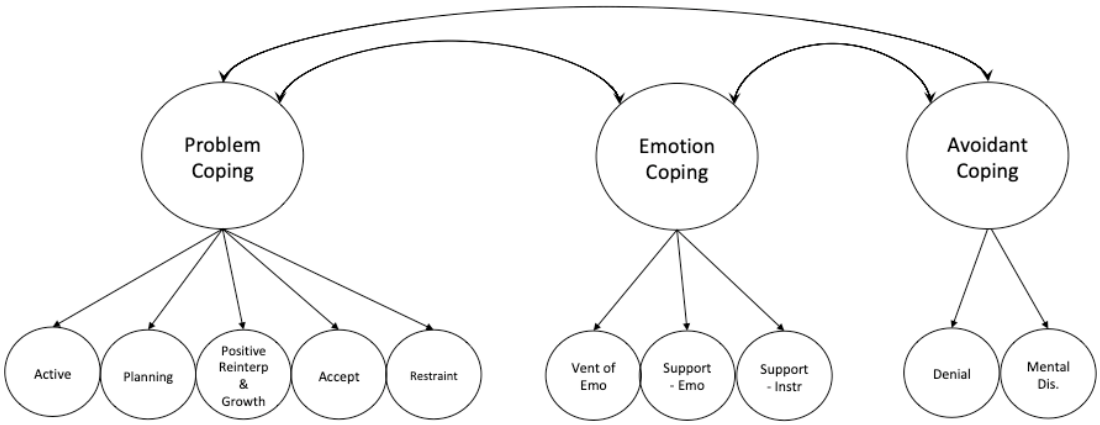


Figure 3.

*Final Four-Factor Model of Coping using the COPE Questionnaire*

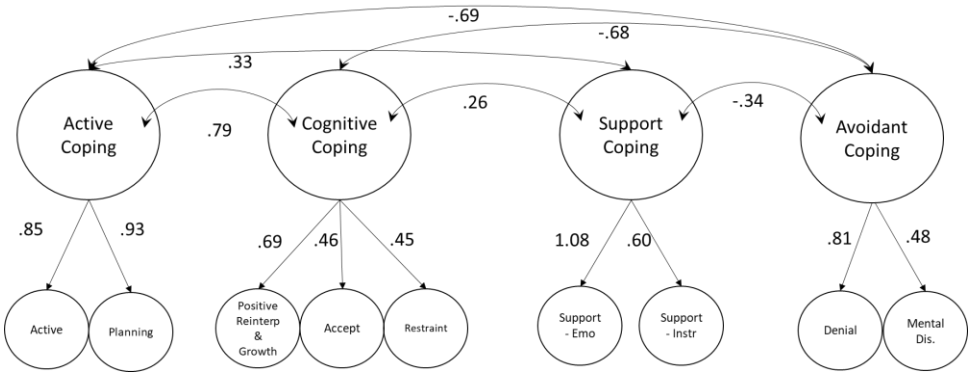



Figure 4.

*Final Three-Factor Model of Coping using the COPE Questionnaire*

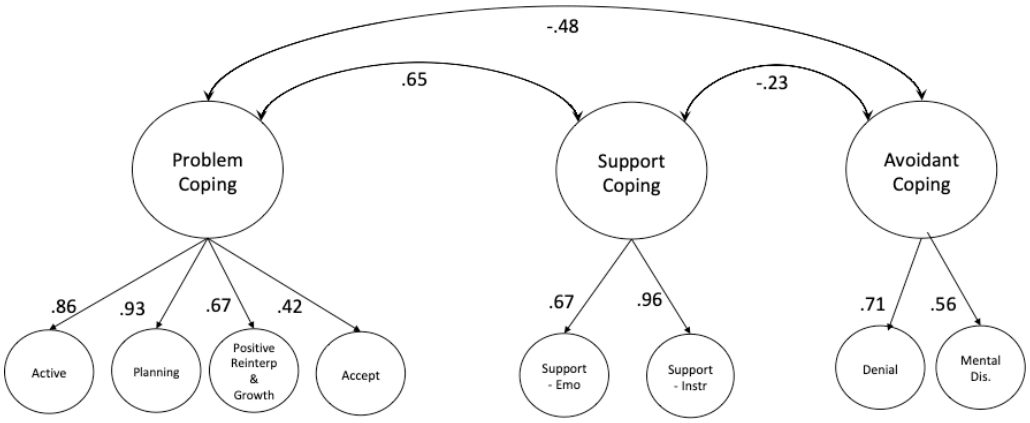
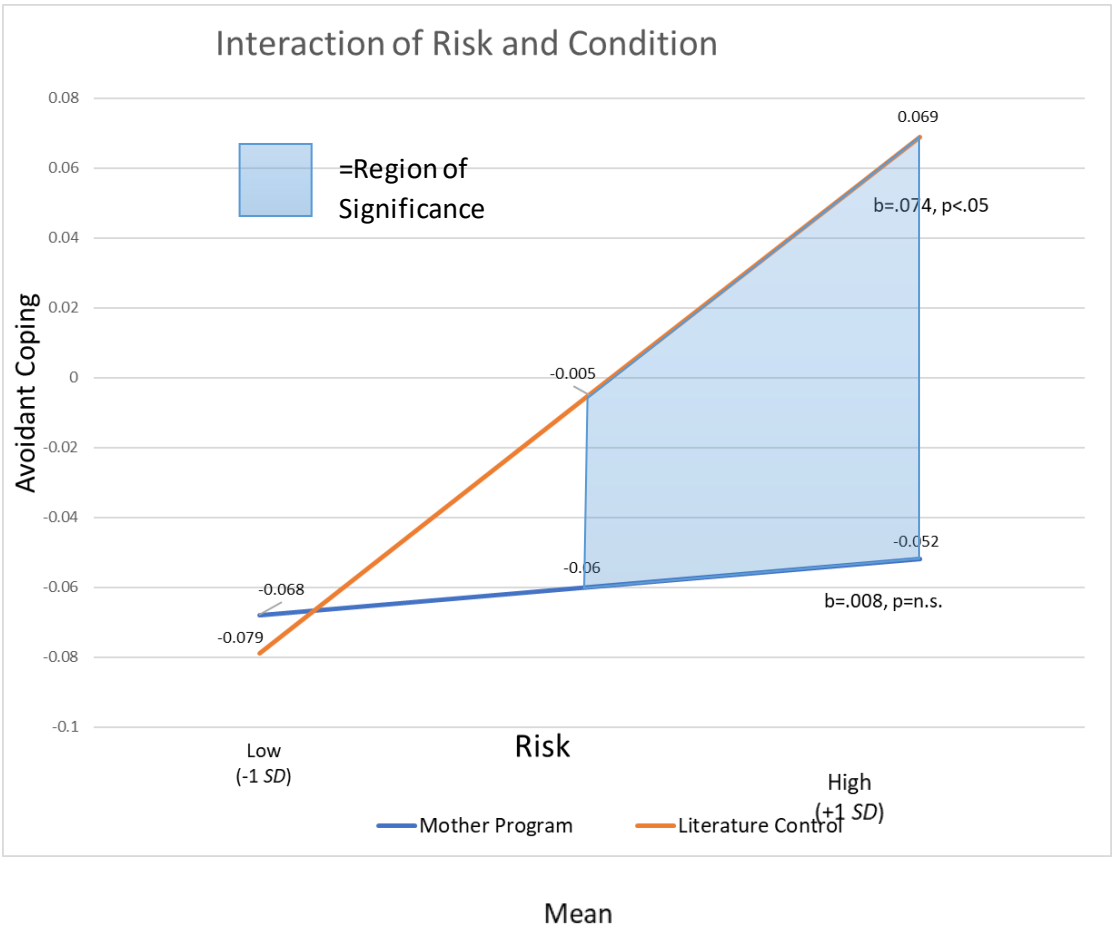


Figure 5.

*Interactive Effect of Program Condition and Risk on Avoidant Coping (MP vs. LC)*



# APPENDIX C

## COPE QUESTIONNAIRE

# COPE Questionnaire

***Instructions:*** *In this next section we are interested in how people respond when they confront difficult or stressful events in their lives. There are many different ways to try to deal with stress. These questions ask you to indicate what you generally do and feel when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you <u>generally</u> do when you are under a lot of stress.*

*Please answer every item. There are no "right" or" wrong" answers, so choose the most accurate answer for YOU not what you think "most people" would say or do. Indicate what YOU generally do when YOU experience a stressful event.*

*When I experience a stressful event, I usually…*

| **Item #** | **Subscale** | **Item** |
|---|---|---|
| 1. | Positive Reinterpretation and Growth | Try to grow as a person as a result of the experience. |
| 2. | Mental Disengagement | Turn to work or other substitute activities to take my mind off things. |
| 3. | Focus on and Venting of Emotions | Get upset and let my emotions out. |
| 4. | Seeking Social Support for Instrumental Reasons | Try to get advice from someone about what to do. |
| 5. | Active Coping | Concentrate my efforts on doing something about it. |
| 6. | Denial | Say to myself, "this isn't real." |
| 7. | Humor | Laugh about the situation. |
| 8. | Restraint Coping | Restrain myself from doing anything too quickly. |
| 9. | Seeking Social Support for Emotional Reasons | Discuss my feelings with someone. |
| 10. | Alcohol-Drug Disengagement | Use alcohol or drugs to make myself feel better. |
| 11. | Acceptance | Get used to the idea that it happened. |

| | | |
|---|---|---|
| 12. | Seeking Social Support for Instrumental Reasons | Talk to someone to find out more about the situation. |
| 13. | Mental Disengagement | Daydream about things other than this. |
| 14. | Focus on and Venting of Emotions | Get upset, and am really aware of it. |
| 15. | Planning | Make a plan of action. |
| 16. | Humor | Make jokes about it. |
| 17. | Acceptance | Accept that this happened and that it can't be changed. |
| 18. | Restraint Coping | Hold off doing anything about it until the situation permits. |
| 19. | Seeking Social Support for Emotional Reasons | Try to get emotional support from friends or relatives. |
| 20. | Active Coping | Take additional action to try to get rid of the problem. |
| 21. | Alcohol-Drug Disengagement | Try to lose myself for a while by drinking alcohol or taking drugs. |
| 22. | Denial | Refuse to believe that it has happened. |
| 23. | Focus on and Venting of Emotions | Let my feelings out. |
| 24. | Positive Reinterpretation and Growth | Try to see it in a different light, to make it seem more positive. |
| 25. | Seeking Social Support for Instrumental Reasons | Talk to someone who could do something concrete about the problem. |
| 26. | Mental Disengagement | Sleep more than usual. |
| 27. | Planning | Try to come up with a strategy about what to do. |
| 28. | Seeking Social Support for Emotional Reasons | Get sympathy and understanding from someone. |
| 29. | Alcohol-Drug Disengagement | Drink alcohol or take drugs, in order to think about it less. |
| 30. | Humor | Kid around about it. |

| | | |
|---|---|---|
| 31. | Positive Reinterpretation and Growth | Look for something good in what is happening. |
| 32. | Planning | Think about how I might best handle the problem. |
| 33. | Denial | Pretend that it hasn't really happened. |
| 34. | Restraint Coping | Make sure not to make matters worse by acting too soon. |
| 35. | Mental Disengagement | Go to movies or watch TV, to think about it less. |
| 36. | Acceptance | Accept the reality of the fact that it happened. |
| 37. | Seeking Social Support for Instrumental Reasons | Ask people who have had similar experiences what they did. |
| 38. | Focus on and Venting of Emotions | Feel a lot of emotional distress and I find myself expressing those feelings a lot. |
| 39. | Active Coping | Take direct action to get around the problem. |
| 40. | Restraint Coping | Force myself to wait for the right time to do something. |
| 41. | Humor | Make fun of the situation. |
| 42. | Seeking Social Support for Emotional Reasons | Talk to someone about how I feel. |
| 43. | Alcohol-Drug Disengagement | Use alcohol or drugs to help me get through it. |
| 44. | Acceptance | Learn to live with it. |
| 45. | Planning | Think hard about what steps to take. |
| 46. | Denial | Act as though it hasn't even happened. |
| 47. | Active Coping | Do what has to be done, one step at a time. |
| 48. | Positive Reinterpretation and Growth | Learn something from the experience. |

# APPENDIX D

## GENERAL COPING EFFICACY SCALE

# General Coping Efficacy (GCE)

**Sandler et al. (2000)**

***Instructions**: Now we'd like you to think about your life in general and how you have handled things that have happened. Please circle the answer that best describes the way you have generally handled things that have happened in your life.*

| Item # | Item |
|---|---|
| 1. | Sometimes things that people do to handle their problems work really well to make their problems better and sometimes they don't work at all to make them better. Overall, how successful have you been in handling your problems? Use this list for this question. |
| 2. | Sometimes things people do to handle their problems work really well to make them feel better and sometimes they don't work at all to make them feel better. Overall, how well do you think that the things you did worked to make you feel better? |
| 3. | Overall, how satisfied are you with the way you handled your problems? Use this list for this question. |
| 4. | You can use this list for the next four questions. Overall, compared to other people, how good do you think that you have been in handling your problems? |
| 5. | In the future, how good do you think that you will usually be in handling your problems? |
| 6. | Overall, how good do you think you will be at making things better when problems come up in the future? |
| 7. | Overall, how good do you think you will be at handling your feelings when problems come up in the future? |